REVISED DRAFT CULTURAL RESOURCES SENSITIVITY REPORT
for the
ANNEXATION OF THE JOHNSON RANCHO, BEAR RIVER HOP FARM, AND DAVE BROWNE PROPERTIES,
YUBA COUNTY, CALIFORNIA

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April 22, 2010

SUMMARY OF FINDINGS

The Riverwest Community Development Department is proposing the annexation of approximately 4,069 acres east of town, encompassing the Johnson Rancho, Bear River Hop Farm, and Dave Browne properties. This report is a cultural resources sensitivity analysis serving as supporting technical documentation for the required Programmatic Environmental Impact Report and General Plan Amendment.

Cultural Resources Inventory Status

Approximately forty percent of the Project Area has been previously surveyed. Sixty percent of the acreage, approximately 2,440 acres, remains to be examined. Two visits to the Project Area were made as part of this study on July 14th and November 4th, 2009.

Prehistoric Resources

One known prehistoric burial site with possible midden is situated within the Project Area. Additional prehistoric resources are likely to be present, especially along sensitive areas such as the old Bear River channel at the southern boundary of the property and Grasshopper Slough.

Historic Resources

Thirteen historic resources have been previously recorded. An additional thirty-one locations of probable historic resources were identified after examining old maps and a modern aerial photograph. Forty-three percent of these locations relate to the Hop Ranches in the northwestern portion of the Project Area. The remainder of probable historical resources is related to mapped homesteads or structures near Johnson's Crossing (a National Register resource) and elsewhere, as well as possible remains of Camp Far West, and linear features such as the Bear River Levee, the Emigrant Trail, and unnamed historic roads. The Hop Ranches, Johnson's Crossing, Camp Far West, and the California Emigrant Trail are regarded by the local historical society and state as important resources worthy of recognition. All currently have landmarks associated with them.

Remaining Inventory Effort, Evaluation, and Mitigation Tasks

Nearly 2,500 acres of the Project Area still need to be surveyed. This work should be done as the plans for specific projects are developed (i.e., during Project EIRs). Some previously surveyed areas may require additional targeted survey to address the possible presence of resources identified on historic maps. Areas of special sensitivity, such as the Hop Ranches, Johnson's Crossing, Camp Far West, the California Emigrant Trail, and the Native American burial site, should be carefully evaluated. Thoughtful measures to mitigate impacts to these resources should benefit the local community and region at large (e.g., creation of a heritage center or interpretive trail, oral histories).

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INTRODUCTION

The Riverwest Community Development Department is proposing the annexation of approximately 4,069 acres east of town, encompassing the Johnson Rancho, Bear River Hop Farm, and Dave Browne properties. This report is a cultural resources sensitivity analysis serving as supporting technical documentation for the required Programmatic Environmental Impact Report and General Plan Amendment.

Project Location

The proposed project site is irregular in shape, nearly five miles in length west to east, and ranging from one to two miles in width north to south (Figure 1). The western boundary follows State Highway 65 and the Union Pacific Railroad tracks. The eastern boundary is situated about one third of a mile west of Camp Far West Road. The northern boundary roughly aligns with portions of Spenceville Road and Dry Creek, while the southern boundary generally follows the Yuba/Placer County line. The lands in consideration are currently zoned for agricultural use only. Elevations range from 85 to 1,930 feet above sea level, generally being distinguished between bottomlands and gently rolling uplands.

Project Description

The applicant proposes developing approximately 13,829 residential lots (very low to high density), as well as lots for other urban purposes such as Employment/Office, Commercial, Civic Center, Elementary and Middle School. Approximately eight percent of the entire acreage would be set aside for use as parks, linear parkways, or open space/drainage. More specific plans have yet to be developed.

Area of Potential Effects

The horizontal extent of impacts is assumed to encompass the entire 4,069 acres. The vertical extent of impacts will vary and be locally specific depending upon final plans. Thus, the archaeological area-of-potential-effects (APE) remains only roughly defined.

Study Methods

This cultural resources sensitivity analysis involved the following tasks:
- review of literature and historic maps;
- development of an historic context;
- visits to the Project Area;
- consultation with local Native Americans and the Wheatland Historical Society;
- search of cultural resources records;
- report of findings and expectations;
- assessment of cultural resources sensitivity;
- summary of cultural resources inventory status; and
- recommendations for completion of inventory, formal evaluations, and mitigation measures.

ENVIRONMENTAL CONTEXT

Geology & Soils

Project Area geology has been mapped by Helley and Harwood (1985:Sheet 2). The flood plain and stream terraces along the Bear River and Dry Creek are covered with Holocene alluvium composed of unweathered gravel, sand, and silt deposited by present-day stream and river systems draining the Sierra Nevada (Helley and Harwood 1985:10 and Sheet 1).

Upland portions of the project area are characterized by presence of the Pliocene Laguna Formation. The Laguna Formation has a highly dissected rolling topography, with tens of meters of relief. It includes interbedded alluvial gravel, and silt. Quartz and metamorphic rocks form most of the pebbles and cobbles, which are within a largely arkosic matrix of gravels and finer sediments. The Laguna Formation was deposited by the ancestral American, Bear, and Yuba Rivers. Former soil profiles usually have been stripped by erosion.

Upland portions of the project area mainly are characterized by Redding Gravelly Loam, which occurs on high fan terraces (Lytle 1998:94). Stream terraces along Grasshopper Slough and Dry Creek respectively have Perkins Loam and Conejo Loam (Lytle 1998:50, 91-92). All upland soils are very deep, well drained, and have formed in alluvium derived from mixed sources. These soils support scattered valley oaks (*Quercus lobata*), and various grasses and forbs. Various species of *Brodiaea* occur on Redding Gravelly Loam, which would have provided a potentially significant food source for Native Peoples (Anderson 2005; Mead 2003).

The Bear River flood plain and associated stream terraces have several soil types. Stream terraces contain Horst Sandy Loam and Horst Silt Loam (Lytle 1998:68-69). These very deep, well-drained soils are formed in alluvium derived from mixed sources. Vegetation includes annual grasses and forbs and valley oaks. The plain itself contains Columbia Fine Sandy Loam (Lytle 48-49) and Hollipah Loamy Sand (Lytle 1998:62-63). Both are very deep, well-drained soils formed in alluvium derived from mixed sources. Vegetation includes valley oaks, annual grasses and forbs, riparian trees (i.e., willows, cottonwoods), dense brush, and shrubs.

Flora

The portion of the Project Area on the flood plain and stream terraces of the Bear River formerly was situated within riparian forest. Dominant plant species occurring within this community included Fremont cottonwood *(Populus fremontii),* California sycamore *(Platanus racemosa),* valley oak *(Quercus lobata),* California box elder *(Acer negundo* sp. *californicum), w*hite alder *(Alnus rhombifolia),* Goodding's black willow *(Salix gooddingii)*, red willow *(Salix laevigata),* mule fat shrub *(Baccharis salicifolia),* buttonbush *(Cephalanthus occidentalis),* Virgin's bower vine *(Clematis ligusticifolia),* Pacific dewberry *(Rubus vitifolius),* hoary nettle *(Urtica holosericea),* poison oak (*Toxicodendron diversilobum*), and California wild grape *(Vitis californica).*

Derby noted that Bear Creek (River) was thickly wooded towards its mouth, with scrub oak, buckeye, and alder. Thompson (1961:314, Figure 5) maps the extent of riparian forest along the Bear River, noting it was approximately 3-2 miles wide, and extended upstream to the vicinity of Camp Far West Reservoir. By the late 1860s, the riparian forest along the Bear River had been largely destroyed by indiscriminate woodcutting for fuel and other purposes (Thompson 1961:311).

In upland portions of the Project Area, away from the Bear River, California prairie occurred, mainly composed of a variety of medium to tall perennial bunchgrasses, herbs, and forbs (cf., Barry 1972; Bartolome et al. 2007; Kuchler 1977; Mayer and Laudenslayer 1988). Among the plant species were needle grass (*Stipa cernua),* spear grass *(Stipa pulchra),* poverty three awn *(Aristida divaricata),* coast goldfield *(Baeria chrysostoma),* blue wild rye *(Elymus glaucus),* alkali rye *(Elymus triticoides),* California poppy *(Eschscholtzia californica),* fox tail *(Festuca meglaura),* various species of gilia *(Gilia* sp.*),* lupine *(Lupinus* sp.), owl's clover *(Orthocarpus* sp.), and clover (*Trifolium* sp.*),* popcorn flower *(Plagiobothrys nothofulvus),* pine bluegrass *(Poa scabrella),* blue-eyed grass *(Sisyrinchium bellum),* giant needle grass *(Stipa coronata*), and foothill stipa *(Stipa lepida*).

Fauna

Native inland fish originally inhabiting the Sacramento River and its tributaries included rainbow trout (*Oncorhynchus mykiss*), now extinct thick-tailed chub (*Gila crassicauda*), hitch (*Lavinia exilicauda*), Sacramento blackfish (*Orthodon microlepidotus*), hardhead (*Mylopharodon conocephalus*), speckled dace (*Rhynichthys osculus*), Sacramento pike-minnow (*Ptychocheilus grandis*), Sacramento splittail (*Pogonichthys macrolepidotus*), Sacramento sucker (*Catostomus occidentalis*), Sacramento perch (*Archoplites interruptus*), tule perch (*Hysterocarpus traski*), and sculpin (*Cottu*s spp.) (Moyle 2002). Among anadromous fishes of note (Moyle 2002), were Pacific lamprey (*Lamptera tridentata*), Chinook salmon (*Oncorhynchus tshawytscha*), and sturgeon (*Acipenser* sp.).

Yoshiyama et al. (1996:332-333) note that historically the Bear River supported a substantial fall run of Chinook salmon. They ascended the river as far as Camp Far West Reservoir, where a waterfall obstructed further progress. Salmon spawned along much of the accessible portion of the river. By 1876, hydraulic mining had completely filled the channel of the Bear River. Near Wheatland the river altered its course for several miles, forming a new channel south of the old one. This devastated the Bear River salmon run. Formerly, it had provided local Native Americans with a significant food resource taken by spearing fish.

Wetland habitats were/are home to a variety of ducks and geese (Acaridae), as well as other waterfowl, among which were/are grebes, pelicans, cormorants, bittern, egrets, herons, rails, coots, cranes, scolopacid shorebirds, gulls, and terns (Cogswell 1977). Upland game birds included California quail, band-tailed pigeons, and mourning doves (Grinnell and Miller 1944; Small 1994; Zeiner et al. 1990a). Various raptors (i.e., vultures, kites, hawks, eagles, falcons, owls) and a host of songbirds/perching birds also occurred (Small 1994).

Historically, much of the Sacramento-San Joaquin Valley was inhabited by several large game mammals among which were black-tailed deer (*Odocoileus hemionus*), tule elk (*Cervus elaphus nannodes*), pronghorn (*Antilocapra americana*), and grizzly bears (*Ursus arctos*) (Ingles 1965; McCullough 1969; McLean 1944; Pyshora 1977; Storer and Tevis 1955; Zeiner et al. 1990b). Among the carnivores (Grinnell et al. 1937; Zeiner et al. 1990b) are coyotes (*Canis latrans*), gray foxes (*Urocyon cinereoargentus*), raccoons (*Procyon lotor*), ringtails (*Bassariscus astutus)*, weasels (*Mustela frenata*), badgers (*Taxidea taxus*), skunks (*Mephitis mephitis, Spilogatus putorius*), river otters (*Lutra canadensis)*, bobcats (*Lynx rufus*), and mountain lions (*Felis concolor*). Abundant lagomorphs (hares and cottontails – *Lepus, Sylvilagus*) and rodents (tree and ground squirrels – *Sciurus, Spermophilus;* chipmunks – *Tamias;* pocket mice – *Perognathus;* kangaroo rats – *Dipodomys;* gophers –*Thomomys;* beaver – *Castor canadensis;* wood rats – *Neotoma;* cricetid mice and voles –*Reithrodontomys, Peromyscus, Microtus;* and porcupines: *Erethizon dorsatum*) are also found (Ingles 1965; Zeiner et al. 1990b).

The flora and fauna of the Project Area and vicinity provided prehistoric peoples and ethnohistoric Native Americans with a variety of resources. Significant food plants included oaks and pines (acorns/pine nuts), grass (seeds), geophytes (bulbs, corms, roots, tubers), greens, and fruits/berries. Deer, elk, pronghorn, rabbits, and terrestrial carnivores were sources of food, furs, and/or bone for artifacts.

CULTURAL CONTEXT

Prehistoric Context

Overviews of the prehistory of the area are provided in several sources (cf., Kowta 1988; Moratto 1984: Chapter 5, 297-304 and 6; White 2003; White and Weigel 2006). Kowta (1988) proposed a chronology-culture history scheme for the northern Sierra Nevada foothills. It closely follows previous studies conducted in the Oroville and Bullards Bar Reservoirs (cf., Moratto 1984:297-301; Olsen and Riddell 1963; Ritter 1970).

Prior to 5,000 before present (B.P.), there is little direct evidence of human occupation (Kowta 1988:46-57; also see Moratto 1984: Chapters 2 and 3). Sometime prior to ca. 11,000 B.P., people entered North America, and occupied the western continent. The period from approximately 11,000 to 8,000 B.P. witnessed presence of the Fluted Point and Western Pluvial Lakes Traditions in California, and other parts of western North America (see papers in Willig et al. 1988). These late Pleistocene-Early Holocene traditions respectively are argued to represent lifeways focused upon hunting big game mammals and exploitation of arid region wetlands.

The following period between ca. 8,000 B.P. and 5,000 B.P. (Kowta 1988:58-66) is predominantly understood from assemblages marked by occurrence of handstones and milling slabs, and presence of Pinto and Borax Lake dart points, as well as infrequent occurrence of obsidian flakes. This evidence is assumed to represent a subsistence base emphasizing the exploitation of seeds and other vegetal resources, as well as food derived from hunting.

Later periods are accorded different labels, and differing time frames, and are represented by a host of sites and assemblages. From ca. 5,000-4,500 B.P. to about 1,500 B.P., the Middle

Archaic Martis Tradition occurred, centered in the northern and central Sierra Nevada. This was followed from about 1,500 B.P. until historic times by various Late Archaic traditions, complexes, and patterns, assumed to mark the advent of Maidu and Konkow-speaking peoples.

Specific manifestations of local/regional prehistory are defined in the temporal sequence first developed in the Oroville Reservoir area (Olsen and Riddell 1963; Ritter 1970), and subsequently applied to adjacent portions of Butte and Plumas Counties (Kowta 1988). The earliest archaeological complex, the *Masilla Complex*, lasted between approximately 3,000 and 2,000 B.P. (Kowta 1988:91-104, 148-149). Use of manos and metates were emphasized for seed grinding. Game was hunted with atlatl and dart points, made from basalt, slate, and chert. These include leaf-shaped, stemmed, and side-notched Martis Series variants. *Haliotis* and *Olivella* beads, charmstones, and bone pins were also part of the Masilla complex assemblages.

During the subsequent *Bidwell Complex* (ca. 2,000-1,200 B.P.), use of large slate and basalt dart points continued (Kowta 1988:91-104, 149-150). At this time, people probably lived in relatively permanent villages. From these home bases smaller tasks groups went out to hunt and fish with nets held down by grooved and notched sinker stones; gather acorns and hard seeds which were processed on millingstones, and probably in wooden mortars; and to collect freshwater shellfish. Steatite vessels were used for cooking. At main settlements, the dead were buried in flexed, dorsal, or lateral positions.

The *Sweetwater Complex* (ca. 1,200-500 B.P.) witnessed the advent of the bow and arrow (Kowta 1988:150-152). Arrows were tipped with small, lightweight projectile points, assignable to the Rosegate and Gunther Series. The steatite industry was elaborated, with cups, platters, bowls, and tubular smoking pipes being produced. A large variety of bone artifacts, and an expanded inventory of shell artifacts types occurred as well. Burial patterning shifted from flexed to extended or semi-extended interments.

The *Oroville Complex* (ca. 500-1500 B.P.) represents the protohistoric Maidu/Konkow (Kowta 1988: 152-154). At this time, bedrock mortars became central to acorn processing. Hallmark artifacts included incised bird bone tubes, bone gorge hooks, gaming bones, and clamshell disk beads. Desert Series projectile points predominated. Steatite vessels were absent. Several kinds of structures, including large circular dance houses, were constructed. Burials were tightly flexed on their sides, and occasionally placed under stone cairns.

Ethnographic Context

The Project Area is situated within the ethnographic territory of the Nisenan, also referred to as the Southern Maidu (Beals 1933; Faye 1923; Gifford 1927; Kroeber 1925: Chapters 27-29, 1929, 1932; Loeb 1933; Merriam 1967:305-322; Powers 1976: Chapters 31 and 32; Ritter and Schulz 1972; Voegelin 1942; Wilson and Towne 1978, 1979). Part of the Maiduan Family of the Penutian Stock, the Nisenan spoke three dialects; Northern Hill Nisenan, Southern Hill Nisenan, and Valley Nisenan. Nisenan territory extended across the watersheds of the Yuba, Bear, and American rivers, and the lower watershed of the Feather River (Beals 1933:336, Map 1; Kroeber 1925: Plate 37; Matson 1972:41, Figure 1; Wilson and Towne 1978:388, Figure 1).

Nisenan Communities & Material Culture

Valley Nisenan communities consisted of permanent settlements located on low natural rises along streams and rivers, or on gentle, south-facing slopes. Each community was composed of a central village and several outlying satellite villages, having access to a territory generally encompassing 100 square miles (10 miles along each boundary) (Beals 1933). Village populations ranged from small extended families of 15-25 people to large villages with over 500 persons, composed of several families (Kroeber 1925, Wilson and Towne 1978:388). Houses were dome-shaped, 10-15 feet across, and covered with earth, tule mats, or thatch. Brush shelters were occupied during summer, and on food-gathering rounds. Major villages had large semi-subterranean, earth covered structures that functioned as ceremonial lodges or dance houses to host community events. Other settlement elements included task camps, resource procurement locations, cemeteries, and ceremonial grounds.

Nisenan economic life was focused upon collecting plant foods, hunting, and fishing (Matson 1972; Wilson and Towne 1978:389-390). The major vegetal food source was the acorn, usually gathered in the fall by extended families or whole villages. Pine nuts, buckeye nuts, a variety of grass seeds, manzanita berries, other fruits and berries, hazelnuts, geophytes, greens, and fungus were also gathered. Deer, tule elk, pronghorn, rabbits, and fish (especially salmon, with important contributions by native inland fishes) were important animal foods. Deer, elk, and pronghorn often were taken during communal drives. Fishing gear included weirs, nets, harpoons, hooks, traps, gorges and watercraft. Waterfowl and terrestrial birds were captured utilizing nets, snares, and hunting blinds. A variety of other animal foods also were taken: freshwater shellfish, lamprey, rodents, grubs, earthworms, larvae, grasshoppers, and lampreys.

Fresh greens, grass seeds, bulbs/roots, acorns, and fruits/berries were gathered and processed during different times of the year (Matson 1972:41, Figure 2). Acorn-processing sites often were located near bedrock outcrops that provided milling sites. Acorns and other stored foods provided winter sustenance. Hunting and fishing, occurring year-round, were focused upon deer, elk, and salmon. Each family had granaries for the purpose of storing acorns as well as dried meat (Wilson 1972). Other foods, pine nuts, hazelnuts, root cakes, dried fish, seeds, and grasshoppers were stored in baskets or sacks. Communities controlled their territory, including hunting and fishing grounds.

A variety of stone tools were used, including knives, arrow and spear points, club heads, arrow shaft straighteners, scrapers, pestles, and mortars (Wilson and Towne 1978:391-392). Tool stone included basalt, steatite, cryptocrystalline, and obsidian. Many artifacts were made from wood (e.g., bows, digging sticks, and mortars), tule (e.g., mats), and plant fibers (e.g., cordage, netting, and baskets). Bedrock mortars, and portable ones, were important components of acorn processing technology. Nisenan informants claim that neither they, nor their ancestors, manufactured the highly valued bowl mortars (Wilson and Towne 1978:391). Bead necklaces of steatite, clamshell, and whole *Olivella* shells, in addition to abalone pendants were traded from the Maidu and Patwin (Wilson and Towne 1978:391). Other items such as salt, feathers, fish and roots were traded with other Nisenan groups.

The tribelet was the primary political group, represented by a headman whose office usually was hereditary and assisted by extended families. The headman's role was primarily as advisor, and

as director of group activities and ceremonies. He was supported by his community, and often possessed great wealth. Each community or group of communities controlled its associated territory, including hunting and fishing localities. Families often controlled particular fishing sites, oak and pine groves, quail fences, gathering areas, hunting grounds, and some seed tracts (Voeglin 1942).

Known Villages

Powers (1877:316) listed eighteen Nisenan villages along the Bear River from the Sacramento River to the foothills. He also noted the frequent presence of mounds along the Bear River, which were former habitation sites. Wilson and Towne (1978:388, Figure 1) depicted the presence of several Nisenan villages along the Bear River downstream from Wheatland. The nearest known village, plotted on the north side of the river near Wheatland, was *Intanto*.

According to the Draft EIR, City of Wheatland General Plan Update (December 2005),

> *Wheatland residents report an "old Indian burial ground" located at McCourtney Crossing, now covered most of the year by water from Camp Far West Reservoir. Dorothy Boom, granddaughter of early Wheatland pioneer Leona Scott Dam, occasionally fed biscuits to visiting groups of Indians in the 1800s. Grace Nightengayle notes that her family once hired Indian sheepherders on their foothill ranch east of Wheatland. She recalls that most Indians during these early times lived along the Yuba River, nearer Marysville. Many died of smallpox; their bodies are now buried deep within the Yuba River gravels. Apart from these accounts, no other evidence of Native American use of the immediate Project Vicinity has been reported.*

Historic Context

Early Explorers

Cook (1955b, 1960, 1962), Dana (1939:27-103), Dillon (1982:28-42), McGowan (1961:I, Chapter II), and Schenck (1926:125-131) note between 1772 and 1840, a number of Spanish and Mexican expeditions into the Sacramento-San Joaquin Delta and Sacramento Valley. After the late 1820s, parties of fur trapper and Euro-American settlers began filtering into the region. The most significant, with respect to potential impacts to Native Americans living in the Project Area and vicinity, were the trips by Gabriel Moraga in 1808, Luis Arguello in 1821, Jedediah Smith in 1828, and John Work in 1833.

Gabriel Moraga

Moraga led several expeditions to the Central Valley between 1806 and 1808 (Cook 1960:247-255; Cutter 1957; Dana 1939:35-36; Dillon 1982:30-31; Hoover et al. 2002:28-29; McGowan 1961:17-19; Mutnick 1979; Schenck 1926:126-127). His expedition in the Fall of 1808 was to select a suitable mission site(s), further explore the Central Valley and Sierra foothills, visit Native American villages, bring converts to the missions, round up mission runaways, and punish Native American horse thieves. After a foray into the San Joaquin Valley, Moraga's party headed north, reaching the American River on October 8, 1808. Continuing north from the

American, his group reached the Feather River at Nicolaus the next day, crossed it, and proceeded north-northwest through the Sutter Basin, observed the Sutter Buttes, and turned west, reaching the Sacramento River north of Grimes. They then followed the east bank of the Sacramento north to a point between Princeton and Butte City. There, on October 12, Moraga turned south, probably retracing his route back to the San Francisco Presidio.

Luis Arguello

In the Fall of 1821, Luis Arguello and Father Blas Ordaz, searching for Euro-American intruders, journeyed north through the Sacramento Valley (Larkey 1969:11; Larkey and Walters 1987:13-15; McGowan 1961:I:20-21; Milliken 2005:3-23 to 3-26). After crossing the Carquinez Straits on October 20-21, they rode northeast through the Suisun Plain and the west side of the lower Sacramento Valley. They followed the river north to the vicinity of Cottonwood, and then turned west. During their trip, the Arguello-Ordaz party encountered numerous Native Americans and a number of villages, some with approximately 900-1,000 inhabitants.

Jedediah Smith

Jedediah Smith's expedition into the Sacramento Valley began in late February 1827. From the American River, the party headed north. Between March 1 and March 26, they followed the Feather River from its confluence with the Sacramento River past Sutter Buttes to present-day Oroville. En route, they camped on the Bear River and trapped beaver. Smith named the 20-yard wide Bear River, Brush Creek, because of the dense vegetation present along its banks. He also noted the banks of the Bear River were very high. This, plus the presence of numerous sloughs, made it difficult to cross. Many Native Americans and numerous settlements were seen during Smith's trip.

John Work

John Work led a party of Hudson's Bay trappers from Oregon past Klamath Lake and into the upper Sacramento Valley (Cook 1955:316-317; Mahoney 1945). Numerous Native American villages were observed along the Feather River. Several thousand people are thought to have inhabited the area. On January 6-8, 1833, Work camped on a dry plain near Wheatland, seeing numerous elk, deer, and pronghorn. Between January 9 and 12, he traveled south to the South Fork of the American River, then returned to camp again on the Bear River for another five days. Work and his men then continued wandering around the Sacramento Valley searching for good trapping grounds before heading west to the Pacific Coast in April. Work spent June and July trapping in the Sacramento-San Joaquin Delta and then headed north again. He reached the Bear River on August 1, 1833, visiting a Native American Village, many of whose inhabitants were ill. The next day Work's party went about ten miles up the Bear River to hunt game. On August 3, they headed over to the Yuba River before leaving for Fort Vancouver. All along the Feather River, Work observed numerous Native Americans who were ill. Work's party is believed to have introduced the malarial pandemic that severely devastated Native American populations in the region (Cook 1955a). As many as 20,000 people contracted the disease and died as a result.

Early Settlers

Don Pablo Gutièrrez

In 1844, Don Pablo Gutièrrez was granted five leagues on the north side of Bear River. At that time, he built an adobe house at the place later called Johnson's Crossing, located about three miles east of Wheatland (within the Project Area). Gutièrrez was killed shortly thereafter in the Micheltorena campaign and his grant was sold at auction by Sutter, the magistrate of the region.

William Johnson & Sebastian Keyser

William Johnson and Sebastian Keyser purchased Johnson's Rancho for $150 and settled there the same year, 1844. After the purchase, the grant was divided, with Johnson taking the east half and Keyser the west. In 1846, they built a two-room log and adobe house a short distance below the Gutierrez adobe.

It was the American settlement closest to the mountains and became a much-welcome destination for overland emigrants. He allowed several families of 1846 overlanders to stay on his ranch for the winter, and it was there that a member of the stranded Donner Party staggered out of the foothills to seek help[1].

California Emigrant Trail

The California Emigrant Trail was the principal overland route to California. It began in 1841 as a single tenuous strand along the Humboldt River and over the Sierras but subsequently branched into numerous cutoffs. It was described in thousands of diaries, letters, narratives, and journals before and during the gold rush[2]. The Truckee Route led to Johnson's Ranch (Figures 3 & 4). According to Lieutenant George Horatio Derby, U.S. Army Topographical Engineer, an average of one hundred wagons and two hundred emigrants were arriving at the Ranch each day in the Fall of 1849 (Paskowitz 2008:55; see also Newell 1997).

Frost (1851), following in their steps, discussed the hardships and warned that the trip was not without difficulties, obstacles, and considerable suffering. It demanded stout hearts and strong constitutions. With this said, he then went on to describe the view upon attaining [Donner] summit (7,000 feet) in the Sierras:

> *"…the view is inexpressibly grand and comprehensive. A mile journey upon the top of the mountain brings the traveler to a small lake, surrounded by good grass, which is often used as a place of encampment. Leaving the lake on the right hand, the trail descends over rocky ground for a few miles,*

[1] On June 24, 1847, Mr. Johnson married young Mary Murphy of the Donner Party, but she divorced him after a few months because he refused to give up his Indian wives. In 1849 Johnson sold his share in the ranch and went to the Sandwich Islands (Hawaii) where he remarried and had a family. Legal affairs involving his former ranch apparently brought him back to California in 1852, but only temporarily. He returned to his home in Hawaii, where he died in February 1863 (ww.xmission.com/~octa/DonnerParty).

[2] Portions of the California Emigrant Trail are now preserved by the Bureau of Land Management (BLM), and the National Park Service (NPS) as the California National Historical Trail and marked by BLM, NPS and the many state organizations of the *Oregon-California Trail Association* (OCTA).

and then enters a beautiful valley about five miles long. Through this valley, which is called the Yuba valley, by the emigrants, flows the Yuba River, a tributary of the Feather River, and the scene of considerable gold digging and washing. This is the commencement of the gold region, and after their journey through the wilderness, here the emigrants greet the "promised land." From this point to Sacramento city, the great terminus of the overland emigration, it is about sixty miles; but the trading post of Yuba, Johnson's ranche, Vernon, and the other posts, offer convenient intermediate resting places."

By 1850, Johnson's Crossing had become a busy waypoint along the stage route between Sacramento and Nevada City (by way of Watson's and the Empire Ranch near Smartsville). A year later, however, the route changed to go over the hills and past Round Tent. Traffic at Johnson's Crossing soon declined to a point where in 1854 it was reported that the crossing was rarely used (Horn 1988:5).

The Johnson's grant fell into the hands of Henry Robinson and Eugene Gillespie in 1849 (Chamberlain and Wells 1879). Real estate speculators, they laid out a town at the Crossing and gave it the name of Kearney in honor of General Kearney[3]. A caretaker named Hoyt lived at Johnson's house to look after their property. Later that year, J.L. Burtis settled there and opened a hotel. He grew barley just below Camp Far West (in the eastern portion of Project Area), and in 1852, planted fruit trees just below Johnson's Crossing. The trees were later buried in mining debris. After 1852, the country along the Bear river and Dry Creek began to be rapidly taken up by settlers trying their luck growing wheat, barley, potatoes and hay crops.

Camp Far West

Military Reserve

The federal government established a temporary military post, Camp Far West, a mile above the Johnsons Crossing in September 1849 (Chamberlain & Wells 1879). Its intent, according to a report of the Secretary of War in 1849, was to aid the Indian agents in preventing the oppression of peaceable natives by lawless white men as well check those tribes that manifested hostility toward the settlers (Bleyhl 1984). It was first occupied by a detachment of the Second U.S. Infantry, under the command of Captain Hannibal Day. Several months after arriving, Captain Day concluded that any aggression was on the part of the whites towards the natives. In his opinion, if violence came, it would be the white man who fired the first shot. The Indian Agent, Adam Johnston, concurred, reporting to the Commissioner of Indian Affairs, in July of 1850, that those living in the vicinity of the fort were "not warlike" (Bleyhl 1984).

Day regarded his military station the "merest pretense of protection or aid of any kind" as he had not the force or ability to send ten bayonets a mile from camp on any duty whatever. Soldier desertion rate was high given the insufficient diet and substandard housing, as well as irresistible draw to the gold fields. The ones that stayed were weak with scurvy. The camp, depicted in a painting in 1849 (Figure 5), was abandoned on May 4, 1852. Today, the Camp Far West is marked by a graveyard surrounded by a low stone fence. The Native Sons of the Gold West have commemorated the place with a plaque (Figure 6).

[3] The town of Kearney never materialized.

Indian Reservation

The sole use and occupancy of Camp Far West and surrounding lands "commencing at Bear River, at the western line or boundaries of Camp Far West; from thence up said stream twelve miles in due line; from thence on a line due north to the Yuba River; thence down said stream twelve miles on a due line of the River; from thence south to the place of beginning" was promised to the local Native American groups (the *Das-pia*, *Ya-ma-do*, *Yol-la-mer*, *Wai-de-pa-can*, *On-n-po-ma*, *Mon-e-da*, *Wan-muck*, *Nim-shaw*, *Bem-pi*, and *Ya-cum-na*) on 18 July 1851[4]. It was understood that the above-named boundary, would include Pen Valley, but exclude Rough and Ready. The treaty, negotiated by Dr. O.M. Wozencraft, was signed by tribal representatives in exchange for their promise to recognize the sovereignty of the United States.

Mining

Hydraulic Gold Mining & Downstream Effects

Hydraulic gold mining began in the upper reaches of the Bear River basin in 1853 (James 1988). The technique employed water at high pressure in conjunction with blasting and sluicing to extract gold from upland alluvial gravels. Mining debris known as slickens began washing downstream in great quantities in 1862, bringing ruin and devastation to the lower valley. After a flood event in January 11, 1862, a thick deposit of sand was left on the bottomlands when the waters retreated, varying in depth from one to six feet, doing an immense amount of damage (Chamberlain and Wells 1879). Another flood, in January 23, 1875, left the lands south of Johnson's Crossing covered in non-productive mining sediments (James 1988). Severe river channel aggradation also began. In February 1878, a flood filled the channel near Johnson's Crossing with 20 to 25 feet of mining debris (James 1988). As a result, Bear River has changed its course considerably and now runs about half a mile south of its old channel.

James Haskell Keyes filed a lawsuit against the Little York Gold Washing and Water Company and nineteen other mining companies in 1878 seeking an injunction to restrain the defendants from continuing to engage in hydraulic mining on the Bear River. Testimony during a mining debris trial held in the District Court of Sutter County provides an idea regarding how the Project Area bottomlands were affected (Pacific Rural Press 10 August 1878).

Mr. Keyes testified that his land, 1,000 acres, about six miles up the Bear River (west of Wheatland), had suffered from damaging overflows four times in the past three years. In that time, an estimated 20,000,000 cubic yards of tailing were deposited into the Bear River and tributaries. About 300 acres were covered in heavy mining sediments ranging in depth from ten inches to three feet, destroying its productive agricultural quality. Some of his land was filled above the fences, and they had to be raised and reset.

> *"The first perceptible change in the river was in 1862 and it has been continual ever since, so that the original channel has become extinct, and a new one formed in another place. The old channel filled entirely in the winter of 1867-68, and broke across the high red land in Placer County, and ran into Yankee Slough. Another channel, called New Bear River, was also formed, commencing at a point where the river leaves the foothills."*

[4] http://digital.library.okstate.edu/Kappler/Vol4/html_files/v4p1103.html

Witnesses testifying on Mr. Keyes behalf, living in the Project Area at the time, included Dr. D.P. Durst and S.D. Woods (Figure 7). In March of 1879, two years after initiating the lawsuit, Keyes was awarded the costs of his suit and a permanent injunction to prevent the miners from discharging their debris into the Bear River or any of its tributaries (Kelley 1959:177). The mining interests immediately appealed the verdict and by November, that same year, had the decision reversed.

Meanwhile, State Engineer William Hammond Hall submitted his long-awaited assessment on the issues of irrigation and mining debris to the State Legislature in 1880. His report provided a "sobering picture of devastation and ruin" (Kelley 1959:133). He estimated 254,000,000 yards of gravel had been mined on the Bear River. He warned that the consequences of further inaction were appalling. William H. Parks, a Sutter County farmer who had pioneered in reclamation, proposed "An Act to Promote Drainage" which would construct a system of debris dams and levees as well as enable swamp lands to be reclaimed and used as settlage basins for mining debris (Kelley 1959:136). With the passage of the act, a dam was built across the Bear River near the foothills, "at a point some 200 feet above the end of the level at Johnsons' Crossing" beginning in August 1880, constructed of brush, wire, and logs (Sacramento Daily Union, 13 August 1880).

Several months later, an Assembly Committee on Water Rights and Drainage was created to hold hearings to consider repealing the Drainage Act. Accusations were made that a similar brush dam across the Yuba River had already broken (Kelley 1959:166). Consequently, the entire Assembly visited the Bear River dam in January 1881. The trip convinced the legislators that the dam was secure and was already immobilizing a great deal of debris. Beyond the dam, rooftops of houses could be seen poking out of the debris. In February, however, the Act was repealed, and, as it luck would have it, torrential rains fell that month. The hard-won drainage system proved powerless to contain the floods and many levees gave way.
In July 1881, Colonel Mendell, accompanied by Commissioner Knox, conducted inspections of both the Yuba and Bear River dam. They discovered two breaks in the Bear River dam (one near the north end from 300 to 400 feet long and another about 100 feet long near the south end), along with settling in three or four places where the crest was two or three feet below its original alignment (Sacramento Daily Union, 12 July 1881).

The Debris Committee from the San Francisco Board of Trade and the Anti-Debris Association met in Sacramento in October 1881 and made a trip to the Yuba and Bear River dams to view for themselves the state of affairs (Sacramento Daily Union, 22 October 1881). Upon arrival at the Yuba River dam, they found it had been set ablaze. En route to the Bear River Dam, they stopped at the former Keyes residence. It was stated that the two-story house had been raised twice, once four feet, and then again six feet, before it was abandoned. The brick cellar had been filled with eight feet of debris (Sacramento Daily Union 20 October 1881)[5].

[5] Two weeks later, the brush dam on the Bear River was found burning (Sacramento Daily Union, 10 November 1881).

Gold Dredging

Gold dredging along Bear River commenced in California around 1898 (Kirshenbaum 2000). At one time, approximately seventy gold dredges were operating in the state, each a massive mobile production unit with a self-contained recovery plant. The Yuba Consolidated Gold Fields, founded by Wendell Hammon around 1908, became probably the largest, most efficient, and most profitable placer dredge operation in the world. Fifty years later, when the industry began winding down, the company had dredged over one billion cubic yards (Spence 1980).

In 1905, the Bear River Gold Mining Company, subsequently called Bear River Exploration Company, was operating four miles east of Wheatland[6] on holdings of 1,000 acres (Doolittle 1905). Four Risdon dredges were in operation, two beginning in July 1900, and the other two in 1902, with bucket sizes ranging between 3 ¼ and 4 cubic feet for a maximum capacity of 50,000 cubic yards per month.

Levee Building

The levee on the north bank of the Bear River was initially built in 1874 by private individuals owning land along its banks, beginning at the foothills near the site of the old Bear River dam and running southwestward with the river for a distance of about six miles. The primary reason for the effort was to hold back the hydraulic mining debris that was carried downriver during flood events, the first being in 1862.

Keyes and Thomas Brewer Sr. built their levees seven feet high to keep the water and debris off their lands, only to have to raise them another two feet each year. Keyes had spent about $15,000 in this effort[7]. In 1874, just four year prior to Keye's lawsuit against the mining companies, the Bear River Levee District No. 1 was formed. The first Commissioners were D.P. Durst, George W. Hall, and James W. Sowell. In 1881, following the passage of the Drainage Act, contracts were awarded to build the Bear River Dam and improve the levees. The north side of the river, from Johnson's Crossing to the railroad was awarded to Wood and Jasper for $22,968 (Sacramento Daily Union, 26 January 1881).

By 1891, when Major Heuer (United States Army 1891:3097) reported to the Secretary of War on the status of the river levee, the State had assumed responsibility for the Levee District. Heuer reported that the levee was initially eight feet high with a base of 25 feet and a crown of six feet. The State added to it subsequently and made it 12 feet high. The Levee as it stood in 1891, had an average cross-section of the following dimensions: height, 18 feet; crown, 6 feet; slopes, about 3 to 1 and 2 to 1. According to Dr. Durst, the levee had so far cost $145,000.

The Hop Industry

Hop Growers

Wheatland became the center of hop culture in the Sacramento Valley in the late 1880s soon producing the largest and best crops of any locality in the state. The crop's principal buyers were

[6] San Francisco Call, 23 August 1902
[7] Brewer's testimony during the lawsuit.

British beer brewers (Tomlan 1992). Many of the primary growers were established along the Bear River, among them, Daniel P. Durst, Hugh Roddan, Samuel D. Wood, Joseph M.C. Jasper, and Emil Clemens Horst (all established in the Project Area).

Daniel P. Durst, was a physician and one of Wheatland's founders in 1867[8]. He graduated from Jefferson Medical College in Philadelphia before immigrating to California fourteen years earlier. In 1883, he planted the first hops on the Bear River. An entrepreneur and innovator, Durst used the most up-to-date trellising systems and used a new "Bear River Hop Press" developed by his son Murray H. Durst (Pacific Rural Press, 15 October 1885) (Figure 8). One decade later, he had become known as the "Hop King" (Pacific Rural Press 14 July 1894). In 1895, he and his neighbor, E.C. Horst were experimenting with artificial drafts in their kilns[9]. Two of Durst's sons, Ralph and Jonathan, continued their father's practice on the family ranch. Murray already had a large ranch of his own and became one of California's leading hop growers in his own right. Dr. Durst died in 1911, as noted earlier, Dr. Durst was a commissioner for the Bear River Levee District.

Samuel D. Wood, born in 1833, came to California from Williamson County, Tennessee (Chamberlain & Wells 1879, East Bear River Township Business Directory). He was a prominent hop grower as well. He owned shares in the Farmers' Bank of Wheatland, which first incorporated in 1874. As noted earlier, he was awarded a portion of a contract to build the levee along the south border of the Project Area.

Hugh Roddan was born in Dumfriesshire, Scotland, in 1822[10]. He was leader of a wagon train that brought his family and others from Iowa to Wheatland. The Yuba County Business Directory (Chamberlain & Wells 1879) suggests he first came to California in 1850, but did not settle in the county until 1862. He is still listed with his family living in Louisa County, Iowa in the 1860 census. Soon thereafter, however, he became known as a successful hop grower. His sons, John Wesley and William Browning, were also enterprising and prosperous in the hop business[11]. The products of their farm were grain and hops, but it is to the latter that they gave their principal attention, annually producing immense quantities. Later, Emil Clemens Horst acquired their farm, expanding his empire.

Joseph M.C. Jasper settled on the Bear River in 1853 at age 20. He was a farmer from Virginia (Chamberlain & Wells 1879, East Bear River Township Business Directory) and known to have raised hops. In 1879, he is listed having 3,500 acres. Later, he advertised to sell 2,900 acres of undulating terrain, eight miles northeast of the town of Wheatland. The entire tract was fenced and subdivided, and had houses, barns, stock-sheds, corrals, etc., for cattle, sheep and horse husbandry. As noted earlier, Jasper was awarded a portion of the contract to build the levee along the southern border of the Project Area. Jasper's hop farm was later acquired by Emil Clemens Horst.

[8] http://yubasutter.wikispot.org/Ralph_Haines_Durst

[9] Between the Dursts, Horst, Jasper, and Woods, 40 kilns were running daily (Pacific Rural Press 3 September 1898).

[10] http://wc.rootsweb.ancestry.com/cgi-bin/igm.cgi?op=GET&db=:1651834&id=I75200031

[11] http://archiver.rootsweb.ancestry.com/th/read/CASACRAM/1999-09/0936333007

Emil Clemens Horst, a young San Francisco hop dealer, purchased a small plot of land just east of Durst in the mid 1880s, and began his own hop farm. He soon bought out Roddan and Jasper, and eventually owned the largest number of acres of hops under cultivation in the world[12]. Horst revolutionized the process of growing and processing hops with his mechanical separator that harvested the hops while discarding the vines and leaves (Figures 9-12). A perfected model for his 1910 harvest picked 25 bales of hops in one day, while an experienced worker picked just two bales in a week. At his Wheatland ranch, he demonstrated that one machine and a force of 100 men did the work of 2,000 harvesters, at one-third the cost and in half the time. Horst was a prolific inventor, obtaining at least fourteen patents over his lifetime (Table 1 and Figures 13-22).

Table 1. Emil Clemens Horst Patents

Year	Patent No.	Invention
1884	513,789	Hop Trier
1907	857,461	Hop Picker (Machine)
1907	855,853	Drying Apparatus [Kiln]
1911	1,012,136	Guard for Hop Picker
1911	1,008,914	Hop Picker
1913	1,054,121	Hop Cluster Machine
1913	1,054,119	Hop Picker
1913	1,054,551	Method of Hop Picking
1913	1,054,120	Hop Separator Cylinder
1915	1,136,423	Hop Separator
1915	1,132,011	Hop Separator
1915	1,012,135	Hop Separator
1920	1,348,139	Stem Picker
1924	1,488,249	Hop Separator

Labor Shortages

Meeting the seasonal labor requirements at harvest time was a serious challenge. Despite high unemployment problems, white workers were unwilling to endure the excessive dust, oppressive heat, skin rashes, and pollen allergies, for the low wages offered. In 1886, hop growers, responding to threats of a strike, united to form the California Hop Growers' Association. Their solution was to hire Chinese laborers, albeit with misgivings (Figure 23). Wheatland's Anti-Chinese Club had already expressed their opinion on this matter (Figure 23). Just a week earlier, a group of thirty masked men from town raided the Chinese workers on Mr. Roddan's ranch, beat eleven hop pickers and then burned down the Chinese bunkhouse on S. D. Wood's ranch[13]. Additional pressures were placed on the hop growers when the club instituted a labor and consumer boycott of all businesses hiring any form of Chinese labor, including the hop yards.

After this experience, Samuel Wood took no chances. Rather than resort to the use of Chinese labor, he solicited the help of 500 white hop-pickers, advertising in the Marysville Appeal (Street

[12] http://www.sacramentohistory.org/films_hopfarm.html

[13] http://www.calarchives4u.com/cemeteries/yuba/wheatland-chinese-american.txt

2004:371). Labor shortages continued to plague hop growers. The four hop yards in Yuba County operating at that time (John H. Durst, D.P. Durst, S.D. Wood, and the Roddan Brothers) employed, during the picking season, about 3,000 men, women, and children (San Francisco Call 18 January 1893). Despite the strong view that hiring non-whites was morally corrupt, unjust, cowardly, and a breach of national faith, hop growers were forced, at times, to "fill the gap with the copper-skins and red-skins" (Chinese, Japanese, and Native Americans). An article in the Sacramento Daily Union in 1893 discusses this issue (Figure 24).

In 1899, while the Dursts, Jasper & Sons, and S.D. Wood, were able to hold on to their hop-pickers, the Horst Brothers ranch had 300 whites and a number of Japanese quit, striking for more pay (Figure 25). In 1902, the Dursts had a similar problem when 75 Japanese and 200 white laborers on their ranch struck for more money (from 90 cents to $1) and when refused, promptly quit, packed up and boarded a train for greener pastures (SFC 87(81) 20 August 1902).

Labor Recruitment & Camp Conditions

To recruit seasonal help, Horst launched advertising campaigns that painted idyllic work conditions. In 1906, he described it as an "enjoyable outing", "healthful, pleasant, and very profitable" with "beautiful camp grounds" kept "perfectly clean, orderly, and well conducted". His tents were rented cheap, his groceries were sold at the lowest prices, and train tickets were discontinued (Figure 26). In 1907, he offered further inducements, describing work as a "vacation at big wages" including a special train straight through with no delay, free conveyance and baggage delivery to the ranch from the station… again, beautiful camping grounds, large cooking ranges, shower baths, tents, spring beds, swimming, hunting, and other amusements (Figure 27).

In reality, camp conditions were unspeakably bad throughout the state and the pay was equally abysmal. To make matters worse, it was common practice for farmers to advertise for at least twice as many workers than they actually needed, ensuring replacements of anyone who dared demand higher wages or spread discontent. Horst was no exception. He testified before the U.S. Immigration Commission that the goal of the advertising campaign was to play one group off against another (Street 2004:396).

After spending two years and over $250,000 developing a hop-picking machine to bypass the hassles associated with hiring seasonal labor, Horst was finally ready, in August of 1909, to test his equipment harvesting crops in Sacramento[14]. As a precaution, however, should anything go awry, Horst had hop-pickers on standby, mislead by the promise of work. When it was announced that there would be no work, the hop-pickers were incensed and demanded pay to compensate for their loss of time. Mass meetings were held, special committees appointed, and grievances drawn. These were presented to the superintendent in charge. When their demands for a settlement were refused, the strikers arrayed themselves against the teamsters who were engaged to haul hops to the kilns, bringing work to a complete standstill.

[14] Using Horst's prototype hop-picker, field workers now needed only to cut down the vines, haul them off, and feed them directly into a machine that separated the leaves. This machine, it was believed, would do the work of 25 men and, by picking the hops at their ripest, ensure a higher quality.

Riot & Reform

Hop production reached a peak between 1912 and 1916. In August 1913, with mass layoffs in the cities (San Francisco and Los Angeles), an estimated two to three thousand people arrived in Wheatland expecting work (Tomlan 1992). The Dursts, while unprepared to accommodate so large a group, did not turn anyone away. According to the Yuba-Sutter Wikispot[15], there were only nine outhouses, no place to dispose of trash, only straw for bedding, and a limited supply of water (Figure 28). Workers laboring in 100-degree heat had to buy water at five cents per glass. Hostilities began when the workers rebelled and struck for higher wages, better sanitary conditions, and fresh ice water in the fields three times a day (Figure 29). Agitated by members of the Industrial Workers of the World (IWW), and angered by the refusal of Durst to fully meet their demands, a riot broke out. Shots were fired and in the heat of battle, District Attorney Manwell, Deputy Sheriff Riordan, and two workers were killed (Figure 20). Three others were wounded. The Durst Brothers ended up paying the hop-pickers a flat rate of $1 per 100-pound sack and giving in to all their other demands. Two IWW leaders (Richard Ford and Herman Suhr) were arrested and convicted of murder (Hoover et al. 2002).

The California State Legislature had, just two months earlier, created the Commission of Immigration and Housing. Their first undertaking was a formal investigation of the Wheatland Riot incident (Vaught 1999), focusing public opinion on the plight of California's migrant workers. Their second undertaking was to draft the Labor-Camp Sanitation Act to raise standards of both sanitation and housing. Soon after, they circulated an Advisory Pamphlet on the subject (Commission of Immigration and Housing of California 1920).

Hop production plummeted after 1916. With the advent of World War I, England shut down hop imports resulting in ruinous unmarketable hop surpluses in the United States. "At the war's end, both Durst and Horst anticipated European trade would boom again. Prohibition caught them completely by surprise. In the early 1920s, hop growers throughout northern California plowed up two-thirds of their acreage. Though Horst made a successful transition to the dry and canned fruit business, Durst never recovered. He died in 1938, bitter and deeply in debt (Vaught 1999:191)."

PROJECT AREA VISITS

Two visits to the Project Area were made to better understand the nature of the terrain, the distribution of known sites, and their condition. Visits were made on July 17, 2009 by Kim Tremaine and Dwight Simons touring the eastern portion of the Project Area and by Dwight Simons on November, 4, 2009, touring the Durst Hop Ranch property.

[15] http://yubasutter.wikispot.org/Ralph_Haines_Durst

SOURCES CONSULTED

Local Native Americans

On May 20, 2009, the Native American Heritage Commission (NAHC) was contacted with a request for a query of the Sacred Lands File and a list of Native American contacts (see Appendix B for complete Native American consultation documentation). TREMAINE contacted all Native American individuals and organizations by letter on May 29, 2009. These include the Butte Tribal Council (Ren Reynolds), the Strawberry Valley Rancheria (Calvine Rose and Robert Kerfoot), and the Enterprise Rancheria of Maidu Indians (Art Angle, and Glenda Nelson).

Wheatland Historical Society

On 29 July 2009, Kim Tremaine and Dwight Simons met the members of the Wheatland Historical Society (WHS) to share information and learn of any concerns they might have regarding the project. Ron Jauch, Richard and Jane Paskowitz, Pat Camarena, Wes Freeman and others attended. The primary purpose of the Society is to discover, collect, preserve, and disseminate knowledge concerning the history of the Wheatland area, of the County of Yuba, and the State of California[16]. Also consulted was a List of Historic Landmarks and Points of Interest (Buildings and Places and Sites) posted on the WHS website (taken from City of Wheatland Draft Design Guidelines, May 2006), *Wheatland 1874-1994,* and the *Images of America: Wheatland* (Wheatland Historical Society 1974, 2009).

California State University, Meriam Library, Special Collections

On 29 July 2009, Kim Tremaine and Dwight Simons reviewed the Durst Brothers Hop Ranch Records archived in Special Collections (MSS 004, 6 boxes, 2.5 linear feet). Of interest were inventories of the buildings and inventories of the contents of specific buildings (e.g., cookhouse, blacksmith shop and garage, tractor repair shop), as well as field equipment and tools.

Northeast Information Center

On May 26, 2009, Melissa Johnson conducted an in-house records search at the Northeast Information Center, California State University, Chico (File # YUB-09-14; see Appendix A for documentation) to research previous sites and studies present within a one-mile radius around the Project Area[17]. Sources consulted included:

- National Register of Historic Resources (National Parks Service 2005)
- California Register of Historic Resources (California Department of Parks and Recreation 2005*a*)
- California Inventory of Historic Resources (California Department of Parks and Recreation 1976)

[16] http://pweb.jps.net/~wheatlandhistory/index.html

[17] Note: The "Project Area" encompasses the parcels included in the proposed annexation. The "Study Area", in contrast, includes the Project Area and a one-mile buffer surrounding it.

- California State Historic Landmarks (California Department of Parks and Recreation 1996)
- Points of Historical Interest (California Department of Parks and Recreation 1992)
- Historic Property Data File for Yuba County (California Department of Parks and Recreation 2005*b*)

Other Sources

The Wheatland General Plan Update and Environmental Impact Report (Raney 2006) were consulted. Newspaper accounts published in the Sacramento Daily Union, San Francisco Call, and Pacific Rural Press in the years between 1860s through 1920s were consulted. The East Bear River Township Business Directory of 1879 was consulted. Searches were also made for historic maps and records at the Yuba County Recorders Office and the Yuba County Assessors Office. Historic maps consulted, included:

• 1849 Map of the Sacramento Valley, Lieutenant G.H. Derby
• 1852 Diseño del Johnson's Rancho, Yuba Co., California, Land Case 397
• 1856 Plat of the Johnson Rancho confirmed to William Johnson by the U.S. Surveyor General
• 1861 Official Map of Yuba County
• 1879 Map of East Bear River Township
• 1940 USGS Topographic Maps

RESULTS OF CONSULTATION AND RECORDS SEARCH

Native American Responses

The NAHC responded by letter, on May 26, 2009, noting the presence of two Native American cultural resources recorded in the vicinity of the Project Area including a petroglyph site and the Wheatland Midden Site. The NAHC also provided a list of Native American individuals and organizations that might have concerns with or interest in the current undertaking.

There was no response to the letters sent on May 29, 2009. Follow up phone calls were placed to Mr. Ren Reynolds of the Butte Tribal Council, Mr. Art Angle, Vice Chairperson of the Enterprise Rancheria, and Ms. Glenda Nelson, Chairperson of the Enterprise Rancheria, on April 21, 2010. Messages were left to please call if they had any knowledge of cultural resources in the vicinity of the Project Area or any concerns regarding the proposed annexation.

Wheatland Historical Society

There are several historical resources within the Project Area recognized at the national, state, and local level, commemorating important places or events. These include:

National and State Resources

- Johnson's Ranch (listed on the National Register of Historic Places; noted as a California Historical Landmark No. 493; listed on the California Inventory of Historic Resources;
- Johnson's Crossing (California Point of Historic Interest, Yub-005; listed on the California Inventory of Historic Resources); and
- Overland Emigrant Trail (California Historical Landmark No. 799-3).

Local "Historic Landmarks"

The following places are listed among 43 unofficial "Historic Landmarks" within or near the City of Wheatland identified and compiled by Neyens (1994):

- Site of Wheatland Hop Riot August 3, 1913, dedicated by the Native Daughters of the Golden West (Camp Far West Parlor No. 218) and the Wheatland Historical Society;
- Site of the Hop Pickers Camp;
- Durst Ranch; E.E. Roddan Ranch; and
- Camp Far West U.S. Army Outpost, 1849-1852, dedicated by the Native Daughters of the Golden West (Camp Far West Parlor No. 218, also recognized as a California Point of Historic Interest Yub-006);

Northeast Information Center

Previous Investigations Conducted within the Study Area

Twenty-six investigations were previously conducted within the Study Area (Table 2, Figure 31). These were reviewed as part of this study. Of these, six cover portions of the Project Area (S-455, 511, 929, 6695, 6683, and 8094) amounting to as much as forty percent of the entire acreage. Sean Jensen, of Genesis Society, conducted three of these investigations including the proposed Wilson Ranch Development Project (Jensen 2004; S-8094), Bear River Development Project (S-6695), and a culvert replacement project (S-6683). The Wilson Ranch investigation involved survey coverage of 1,200 acres within the eastern Project Area. The Bear River investigation involved survey coverage of 150 acres at the western end of the Project Area. The remaining investigations included an archaeological reconnaissance of a small portion of the Johnson Ranch site conducted by Horn (1988), an assessment for the Sunrise Wheatland Subdivision (Swillinger 1989), and a survey along portions of former Bear River channel (along the southern boundary of the Project Area) and Grasshopper Slough/Spenceville Road (along the northern boundary of the Project Area) nearly 50 years ago (Stoll and Thompson 1961).

Previously Recorded Resources within the Study Area

Twenty-four (24) previously recorded resources were identified during the records search (Table 3, Figure 32).

Prehistoric Sites

Of these, five are prehistoric, including one burial/midden site (CA-YUB-751), three bedrock mortar sites, and a petroglyph site. The only prehistoric site located in the Project Area is CA-

YUB-751[18], situated on the Bear River floodplain at 90 feet elevation within an almond orchard about 1.5 miles southwest of Johnson's Crossing (Storm 1977). It is noted as having contained at least several flexed burials with associated *olivella* shell beads, a *Haliotis* pendant, and large obsidian projectile points (salvaged by E. Wettstein of Yuba College sometime prior to 1977). This *may* be the "Wheatland Midden Site" referred to by the NAHC.

Historic Sites

Nineteen (19) historic sites have been previously recorded within the Study Area, twelve (12) of which are situated within the Project Area. Those sites outside the Project Area (n=7) include three canal segments, a pre-WWII trash dump, a military maneuvers range associated with Beal Air Force Base (including features such as cement bunkers, earthen berms, firing ranges, foxholes, concussion craters), and a water tank/tower.

Two of the twelve (12) historic sites within the Project Area are associated with the early settlements of Johnson and Webster. The remaining ten (10) historic sites relate to late 19th and early 20th century industrial activities of hop raising and gold dredging.

Johnsons' Adobe. CA-YUB-1195-H is the trinomial assigned to the remains of an adobe structure on Johnson's Rancho, five square leagues of land originally granted to Pablo Gutierrez in 1844 (Horn 1988). Whether this adobe is the one built by Gutierrez at the Bear River crossing later referred to as Johnson's Crossing is not known. The east half of this grant was acquired by William Johnson in 1845 after Gutierrez was killed. The west half went to Sebastian Keyser. Johnson and Keyser are said to have built their own adobe house a short distance below the crossing (Chamberlain and Wells 1879). The site record details findings associated with remnants of two adobe walls and the "Burtis Hotel" area, along with mention of a stone-lined well and a square depression (10 x 12 feet in dimension).

The adobe walls consist of two low linear melt mounds, 12 feet wide and one foot high, forming an L or abbreviated T-shape (50 feet long east to west and 65 feet long north to south). Surface artifacts associated with the adobe, observed during recordation, included earthenware shards (plain white glazed, floral decorated polychrome, blue glazed, and brown and cream glazed) and glass bottle and jar fragments (e.g., clear, light green square paneled, olive green, an aqua hand-finished jar neck, a clear round base fragment, a light green hand-finished neck, an amber base, and a clear bottle stopper with ground sides and bottom). In addition, ceramic buttons, clay pipe stems, and pencil leads were found.

Shallow iron, brass, and lead artifacts, found during metal detection efforts between 1985 and 1987 (Steed 1999), included items such as square nails, a door hinge, tent grommets, mule, horse, and oxen shoes, harness buckles, rings and chain, hames iron, wagon parts, belt, overall and suspender buckles, an iron boot shank, gold plated jewelry, forks, knives, spoons, cast iron stove parts, cast iron pot handle, a meat hook, a coffee mill handle, a straight-razor blade, a pocket knife, keys, the wick raising mechanism for a kerosene or oil lamp, a compass direction plate, ramrod brackets for a muzzle loading rifle, a double set trigger mechanism, rifle balls, a

[18] Four of five prehistoric sites within the Study Area lie outside the Project Area within the eastern one-mile buffer zone.

patch box cover for a Mississippi Rifle, and a percussion cap box with a drop of mercury inside.

Burtis Hotel. To the west of the adobe (250 feet), on an adjacent hilltop, is a rectangular outline (30x40 feet) attributed to the Burtis Hotel, established in 1849 by J.L. Burtis. Mr. Burtis also ran a blacksmith shop, store, and post office on the premises (Chamberlain and Wells 1879). Surface artifacts, while sparse, included glass fragments (clear, olive green, dark bluish green), earthen ware shards (plain white glazed, gray on white decorated transfer print plate rim), zinc canning jar lid fragments, heavy gauge wire, square nails, a round flat washer, and a barrel hoop. Shallow iron, zinc, and brass items, found during metal detection (Steed 1999) included additional barrel hoop fragments, zinc canning jar lids, wagon parts, horse and mule shoes, harness chain, eating utensils, an iron hinge, a latch, and a large brass spike.

A trash disposal area southwest of the "Burtis Hotel" feature contained numerous artifacts including: glass bottle fragments (amber, purple, cobalt blue, yellow-tinted, and clear), clear screw-top canning jar fragments, clear square paneled medicine bottle fragments, an embossed clear screw-top Vaseline jar, a purple crown-top bottle neck made in an automatic bottling machine, purple vase fragments, an internally scalloped drinking glass with a crown embossed in the base, earthenware (relief molded white, white with a gilded line decoration, white polychrome floral decorated), stoneware (red, yellow and cream glazed, sewer drain tile), window glass, round nails, sheet metal, heavy gauge wire, white milkglass liners from "Boyd's" and "White Crown" zinc canning jar lids, barrel hoops, a hand saw blade, a wire-spoked baby buggy wheel rim, chicken wire, burned bone, leather fragments, and cotton reinforced rubber. These items are noted dating from at least the 1890s to the 1920s. Artifacts dating to the hotel, between 1849 and 1889, are lacking. Suggestion is made that artifacts of more recent origin could be related to the later Muck family, who purportedly resided about 500 feet to the west.

Wilson's Ranch. A.J. Webster, a farmer and stock-raiser, settled on 4,000 acres within the eastern portion of the Project Area in 1873, on what later became known as Wilson's Ranch (shown on East Bear River Township Map published in Chamberlain & Wells 1879). Webster is listed in the 1879 business directory (Chamberlain & Wells 1879). He raised livestock, including 6,000 sheep. He had improvements of houses, outbuildings, and three large commodious barns. Mr. Wilson is said to have purchased the property in 1946 (Jensen 2004). A site record, CA-YUB-1653, was prepared for the ranch complex (Jensen 2004). At the time of recordation, the "original" residence had been destroyed by fire some twenty years prior. A modern single-story wood-framed and stucco-sided residence was built in its place. Other features on the premises included a livestock/hay barn and livestock/equipment barn constructed prior transfer of ownership. In addition, a small wood-framed and wood-sided bunk-house, was noted, built by Mr. Wilson in the late 1940s or early 1950s, along with several corrals situated adjacent to and interconnecting the two barns. Today, no structures remain, all of them having been dismantled and removed.

Horst's Hop Ranch Complex. Eleven primary records have been prepared in association with Horst's Hop Ranch Complex, named on the 1947 USGS topographic map, Horstville (Jurich and Martinez 2008), including five areas with concrete pads/foundations (two with associated palm trees), a bridge crossing Grasshopper Slough (still functional and in use), remnants of a

concrete structure on the south bank of Grasshopper Slough, an 8" water pipe, an old concrete weir, a levee, and an "adit/tailing pile" on the north side of the Slough[19].

Gold Dredge Tailings

One site is identified, P-58-1654, referenced as Wilson Ranch #2, documenting tailings within the very southeast corner of the Project Area (Jensen 2004). The tailings are recorded 100 feet wide by 300 feet long, covering an area roughly 30,000 square feet, piled approximately ten to twelve feet high. No additional artifacts or features within the area were noted.

EXPECTATIONS AND SENSITIVITY

After examining historic maps, modern aerials, and reviewing existing records, other probable historic resources are likely to be present within the Project Area (Figures 31-34). Table 4 provides a list of thirty-one (31) probable historic resource locations, along with rough GPS coordinates for future field investigation of presence/absence (Figure 37). Those noted as "areas of interest" showed some indication on modern aerial photographs of a possible man-made feature. Most relate to the hop ranches and potential resources in the vicinity of Johnson's Crossing.

Table 4. List of Probable Historic Resources Locations within the Project Area

I.D. No.	Resource Type	Description	Source
1	Hop Ranch	AOI *[1] Residence/Ranch Complex	Modern Aerial
2	Hop Ranch	Durst Ranch	1949 Topo, Modern Aerial
3	Hop Ranch	Durst Kilns	Modern Aerial
4	Hop Ranch	AOI- alignments near Durst Ranch	Modern Aerial
5	Hop Ranch	AOI- scraped land & faint outline of geometric shape	Modern Aerial
6	Hop Ranch	S.D. Wood Ranch	1879 East Bear River Twnshp Map
7	Hop Ranch	J.M.C. Jasper Ranch	1879 East Bear River Twnshp Map
8	Hop Ranch	AOI- rectangular outlines of 3 structural foundations	Modern Aerial
9	Hop Ranch	AOI- Ranch/Residential Complex	Modern Aerial
10	Hop Ranch	AOI- dirt road, rectangular outline, & tree cluster	Modern Aerial
11	Hop Ranch	AOI- scraped land & rectangular outlines	Modern Aerial
12	Hop Ranch	Hugh Roddan Ranch	1879 East Bear River Twnshp Map
13	Hop Ranch	Horstville	1949 Topo, Modern Aerial
14	Hop Ranch	AOI- possible structure btwn road & drainage	Modern Aerial

[19] Cultural resources associated with Horstville have been assigned primary numbers P-58-2209-H through P-58-2218.

15	Historic Homestead	A.W. Sowell	1861 Yuba Co. Map
16	Unknown	AOI- dirt road intersection	Modern Aerial
17	Military Post	Camp Far West	1849 Derby Map, 1856 Map, 1861 Yuba Co. Map, 1879 Map, Modern Topo
18	Unknown	AOI- multiple dirt roads & intersection	Modern Aerial
19	Unknown	AOI- unfarmed triangular area & possible structure	Modern Aerial
20	Historic Homestead	Unknown	1861 Yuba Co. Map
21	Historic Homestead	Adobe	1861 Yuba Co. Map
22	Historic Homestead	Unknown	1861 Yuba Co. Map
23	Historic Homestead	A.W. Wm. Smyth	1861 Yuba co. Map
24	Historic Homestead	Unknown	1861 Yuba Co. Map
25	Historic Dam	--	Modern Aerial
26	Historic Dam	--	Modern Aerial
27	Historic Levee	Bear River Levee District	Modern Aerial
--	Trail	California Emigrant Trail	1856 Map, 1861 Yuba Co. Map, Modern Topo
--	Historic Road	Unnamed	1856 Map, 1861 Yuba Co. Map
--	Historic Road	Unnamed	1856 Map, 1861 Yuba Co. Map
--	Historic Road	Unnamed	1856 Map, 1861 Yuba Co. Map

*1 "Areas of Interest" refer to locations where modern aerial photographs indicated the possible presence of man-made feature.
*2 Coordinates are based off maps that are difficult to georeferenced and were not always to scale or surveyed with the degree of accuracy by today's standards. Therefore, these coordinates only roughly locate where probable historic resources may be.

There are several key points of concern regarding the known and expected cultural resources within the Project Area. These include:

- Prehistoric Sites;
- Johnson's Crossing and associated resources;
- Camp Far West;
- California Emigrant Trail;
- Webster's Ranch;
- Hop Ranches (Durst, Horst, Jasper, Roddan, & Wood complexes)
- Levees & Dams; and
- Gold Dredging.

Prehistoric Sites

Findings & Expectations

No prehistoric sites are known within the Project Area with the exception of one burial site, CA-YUB-751, recorded in the bottomlands about 1.5 miles southwest of Johnson's Crossing. Other sites may be present. Small villages or temporary campsites are often located near smaller perennial watercourses. Larger villages are more often situated in close proximity to major watercourses, such as the Bear River. Resource procurement activities (i.e., hunting, food gathering, trade, etc.) regularly took people from their residential localities into the surrounding area. Evidence for such activities would most likely be flaked and ground stone tools, waste materials resulting from stone tool production, and ecofacts (i.e., animal bone, charcoal, fire-affected rock, and so forth).

Sensitivity

Areas of highest sensitivity include the Grasshopper Slough corridor and lands along the old Bear River channel. It is cautioned because sites may be buried or obscured by an unknown volume of hydraulic mining debris deposited in the bottomlands (e.g., Mr. Burtis fruit trees, for example, planted just below Johnson's Crossing, were buried by mining debris). The question is how much? The thickness in the bottomlands is likely to have been variable but perhaps not more than a few feet. The deeper deposits occurred downstream, west of Wheatland.

Recommendations

CA-YUB-751 was recorded over thirty years ago. As previously stated, this site is situated about 1.5 miles southwest of Johnson's Crossing (Figure 32). In 1977, E. Wettstein conducted a salvage excavation. The site record, prepared by D. Storm, indicates at least several flexed burials were encountered. Also mentioned were large obsidian projectile points, *olivella* shell beads, and a *Haliotis* pendant. At a minimum, this site should be relocated and re-recorded. It is recommended that efforts be made to avoid impacts to this resource. When a development plan/tentative map is submitted for the portion of the Project containing this resource, consultation with Native Americans should be reinitiated. If impacts cannot be avoided, this site should be evaluated for significance and integrity according to criteria set forth for the California Register of Historic Places. If found eligible, and if impacts cannot be avoided, measures must be taken to mitigate this site.

A qualified archaeologist should conduct intensive surveys as project plans are refined and future environmental reviews are conducted. Special care should be taken along Grasshopper Slough and the old Bear River channel (the southern boundary of the Project Area). A program of augering should be implemented in the bottomlands to estimate the thickness of mining debris layer. This will help refine expectations regarding the possibility of, and depth of, buried cultural deposits. Systematic sampling, by hand and or mechanical auger, shall be implemented according to a grid pattern across the bottomlands (roughly 4800 meters long by 1200 deep). A sampling interval of 400 meters provides a total of 36 samples. This should be sufficient to gain some idea of the mining debris blanket thickness. These data should be supplemented by existing geotechnical borelogs taken as part of previous Bear River levee investigations.

Johnson's Crossing and Associated Resources

Findings & Expectations

A focused survey of this area was conducted in 1987, more than twenty years ago. At that time, two main areas were documented, the remains of an adobe structure with associated artifacts and a locus believed to be that of the Burtis Hotel. Two smaller features, a rock lined well and a square depression were also recorded. This resource, CA-YUB-1195-H (see Figure 32), was nominated for listing in the National Register of Historic Places in 1991 (see Appendix A).

Historical accounts of the area, the 1852 Yuba County Tax Table, and the Official Map of Yuba County (1861), suggest the likelihood of additional resources in the vicinity of the crossing. The Johnson/Keyser adobe was purportedly built "a short distance below the crossing" and may be the one depicted in the 1861 county map. The 1852 tax table lists James Burtis at the crossing with an adobe house, a miner's house and other improvements (blacksmith shop, store, and post office). Others with assessed taxes at Johnson's Ranch included Charles Hoyt (Gillespie & Robinson's caretaker), Col. Joe Lewis, and Anthony Turner. One mile below the crossing, Harry Murry and a squatter named George Howser, had also made improvements.

Recommendations

Given the expectation that additional material remains are present (e.g., visitor encampments, early settler housing, privies, trash disposal pits and trash surface scatters), and the fact that the site record for CA-YUB-1195-H is over twenty years old, the site record should be updated. Because hydraulic mining debris may have blanketed the area so as to obscure any surface evidence, locating these remains will require the use of geophysical methods[20]. In addition, the area within the larger Johnson's Crossing vicinity (approximately one mile downstream and half mile upstream) should be intensively surveyed to locate known historic resources listed in Table 4 and other potential undocumented but probable resources, including historic encampments and squatter shanties. If resources are found and impacts anticipated, a research design-work plan, and formal evaluations should be completed to assess significance and integrity of individual resources[21].

[20] The most appropriate geophysical method will depend upon findings of the augering program (e.g., depth of hydraulic mining overburden and clay content). For shallow detection of ferrite materials, a simple metal detector may suffice. Other methods may include ground-penetrating radar or magnetometer. However, given the potential variable depths of mining debris overburden, and range of materials/features being sought (e.g., adobe foundations, privies, trash pits, graves, and metal), a mobile system, capable of covering large areas at greater depths, such as a conductivity/magnetic susceptibility instrument, is recommended.

[21] A research design-work plan should provide an historic context, identify relevant research questions, indicate appropriate methods to address these questions, specify minimum sampling density, level of recording effort, and report contents.

Camp Far West

Findings & Expectations

Camp Far West appears to have been directly adjacent, but outside the Project Area, based on descriptions and location of the graveyard. Nevertheless, it is likely that the soldiers inhabiting the vicinity did not restrict themselves to the boundaries of their reserve. And because there is doubt regarding the exact placement of the reserve, it should probably not be assumed that resources associated with this important military post are not present. From descriptions of the camp and a drawing of it, there were seven structures built, including a log fort, a cabin, and barracks.

Recommendations

While Jensen (2004) recently surveyed the eastern portion of the Project Area, and no evidence of the camp was found, use of geophysical methods to confirm the absence of remains is advisable when specific plans for this portion of the Project are developed. It is likely that camp-associated remains will be fairly shallow, as this area should have been situated above the flood plain and hydraulic mining deposits. For appropriate geophysical methods, see Footnote 20. If resources are found and impacts anticipated, a research design/work plan, and formal evaluations should be completed to assess significance and integrity (see Footnote 21).

California Emigrant Trail

Findings & Expectations

The California Emigrant Trail is noted on the current USGS topographic map crossing through the Project Area leading to Johnson's Crossing. Jensen (2004) reports no evidence of the trail during his survey of the eastern portion of the Project Area. Modern aerials show no indication either. Evidence is expected to be in the form of ruts or more compact portions of land and perhaps bits and scraps of items discarded by travelers en route.

Recommendations

It is possible that historic aerial photographs or aerial lidar flown at a low enough altitude may help to identify traces of the trail. Given the strong interest in this trail by the National Park Service, the Bureau of Land Management, the Oregon-California Trail Association, and the Emigrant Trails West (non-profit organization), it is recommended that these organizations be consulted by a cultural resources management specialist when specific plans to develop this portion of the Project are prepared, for any knowledge or concerns they may have. If no physical evidence exists, then no cultural resource management is required. A marker commemorating the trail is already posted along Spenceville Road.

Webster's Ranch

Findings & Expectations

Webster's Ranch was recorded in 2004 (CA-YUB-1459-H), documenting a modern ranch house and an historic barn associated with a Mr. Wilson. During TREMAINE'S field visit, it was learned that these structures have since been dismantled. It may be that with these structures removed, additional features associated with this early settlement can be located.

Recommendations

A qualified archaeologist should update the site record for this resource, when specific plans to develop this portion of the Project are prepared, to reflect changes on the ground. Should subsurface features such as historic privies or trash pits be discovered, these will require assessment for significance and integrity.

Hop Ranches

As is clear from the preceding sections outlining the historical context, both the Horst and Durst hop yards were of great importance to the general Wheatland community for many years, and have contributed on both a state and national level in regards to labor issues resulting in laws protecting migrant workers. In addition, the Project Area encompasses the hop farms of Roddan, Jasper, and Wood. As such, the area may best be delineated as a hop ranch District.

An archaeological research design was commissioned and recently published by Caltrans, specifically addressing the topic of work camps (HARD Work Camps Team 2007)[22]. Consideration of the Wheatland Hop Riot and reforms of the Progressive Era resulting from it are specifically emphasized in their report. Expected work-camp property types identified include: residences, support facilities, infrastructure, refuse disposal, and work facilities. Guidelines are provided on how to assess research potential and data requirements. Research themes include camp function and design, camp management policy, camp conditions, labor stratification, immigration and ethnicity, gender and family, daily life, and labor organization and legislation.

The Caltrans Work Camp research design outlines numerous research questions. To summarize, "the approach allows investigations of how management approaches varied, how worker militancy varied between industries and through time, and the actual on-the-ground impacts of progressive legislation, unionization, and changing management approaches. The archaeology of work camps can fill significant gaps in the documentary record regarding the people who lived in work camps. Work camps and the workers who lived in them were, and continue to be, part of a hidden national and often transnational economy" (HARD Work Camps Team 2007:105).

[22] http://www.sonoma.edu/asc/publications/HARD/Work%20Camps_Research%20Design_Draft2_web.pdf

Findings & Expectations

Horst Hop Complex

Eight resources have already been recorded within Horstville. Unfortunately, not enough information is detailed to determine their significance (only Primary Records were prepared) and no attempt was made to tie the resources to the rich historical context available. There is no doubt much more material remains to be identified. Horst, in 1898 had ten kilns running daily (Pacific Rural Press, 3 September 1898).

Durst Hop Complex

The Durst labor camp and rest of the Durst Hop Complex have not yet been surveyed. Durst Property inventories (1938) discovered at CSU Chico's Meriam Library, Special Collections, suggest there are likely to be remains of numerous other structures, including a blacksmith shop (68x48 ft), a garage (2 story), a storehouse, a small tenants dwelling, a foreman's cottage, a two-story fourteen room brick house, an office building, a bunk house with shower (40x18 ft), another bunk house (18x43 ft), a horse barn, a shed (18x48 ft), a Japanese bunk house and cook house (40x56 ft), picking machine shed, a pump house, additional kilns (five brick kilns (30x30 ft), two hopper-type kilns (32x33 ft), four cement kilns (32x33 ft), two wood kilns), a tramway, and a cooling shed/store house.

Farming equipment included, but was not limited to four Horst Hop Picking Machines, three high wagons, twenty-one flat wagons, one iron-wheeled wagon, six four-horse Fresno scrapers, several ditchers, several trucks (1925 Dodge, 1930 Ford, 1927 International, 1918 Standard), over a dozen harrows, and over a dozen plows.

Camping gear included 39 tents, 127 cots, 4 shower houses, 7 tables, 12 benches, a large range, one electric refrigerator, 34 small fans, and 2 large fans. The cookhouse contained 100 dinner knives, 121 forks, 90 teaspoons, 71 tablespoons, 160 plates, 98 cups, 93 soup bowls, 7 sugar bowls, and 8 salt shakers, along with 6 skillets, 8 roasting pans, 1 large steamer, 2 large strainers, 17 coffee pots, 6 10-gallon kettles (aluminum and granite), 3 4-gallon kettles, 16 water pitchers, 62 pie tins, 19 cupcake pans, 3 cake pans, 7 ladels, 4 cook spoons.

Parker's (1920) description of the camp and historic photographs of the camp are available to assist in mapping the complex layout and interpreting features on the ground. Historic aerials would also be helpful. Parker observed that the camp was comprised of a motley collection of tents, timber stockades called bullpens, gunny sacks stretched over fences, and camp wagons. Toilets were scattered at irregular intervals among these shelters.

On August 3, 1913, 2,800 people were camped on a low unshaded hill of the Durst Ranch (Parker 1920). Of these, 1,005 were women and children. Among the groups present, one hop inspector testified during the course of the trial, that in his gang of 235, there were 27 nationalities. One witness testified he heard seven different languages being spoken. A partial list of nationalities included: Syrians, Mexicans, Spanish, Japanese, Lithuanian, Italian, Greek, Polish, Hindu, Cuban, Puerto Rican, and Swedish. They lived in their own "native quarters" on

the grounds. These facts leave one to believe that the Durst Labor Camp is probably very rich in information.

Wood, Jasper, and Roddan Hop Ranches

According to the 1879 Map of East Bear River Township, Roddan's ranch was north of Horst's. Jasper's and Wood's were to the west, but east of Durst's. As previously mentioned, Jasper's and Roddan's hop ranches were later acquired by Horst. All these ranches would have had their own kilns. In 1893, Roddan had a double 30-foot kiln built adjoining his old kiln (Pacific Rural Press, 8 July 1893). Jasper's kiln was just being built at that time. Wood was having an excavation made in the hillside just south of his old kiln where he was planning to erect a double fireproof brick kiln. In 1898, Jasper reportedly had four kilns and Wood had eight (Pacific Rural Press, 3 September 1898).

All three hop growers would also have had their own cooling sheds, packing houses, and labor camps. Mr. Roddan, in September of 1893, was constructing a cooling room (62x160 feet) to replace the one blown down the previous winter. Jasper's was just being built. By then, Wood's Chinese bunkhouse had burned down, but is likely to have been rebuilt. The point is that while no standing structures now exist, remains of these once thriving hop farms are likely to be present. Modern aerial photographs were examined to see if there were traces of evidence that might help to better narrow the field search.

Recommendations

All standing architectural structures associated with the Hop Ranches should be recorded. A qualified architectural historian should prepare DPR records (e.g., Building, Structure, Object form) and Historic American Buildings Survey/Historic American Engineering Records (HABS/HAER). During a half-day field visit to the Durst property, it was evident that the hop kilns are in poor shape and on the verge of collapse (Figure 38). Detailed recordation using terrestrial lidar should be conducted before their condition declines any further.

It is our recommendation that the various hop-related resources be recorded as part of a Wheatland Hop District, with evaluations completed to establish which elements/features contribute to its significance. When investigations are completed, if warranted, this district should be nominated to the National Register of Historic Places.

Jason R. Meek, a Yuba County surveyor at the turn of the 20th century, surveyed the Durst's Camping Ground in July of 1914 (Meek 1911). His field notebook indicates the distances and bearings to features in the camp ground and vicinity that may assist in locating and delineating features associated with the Durst Hop Ranch, including the Durst home, a house, barn, red barn, blacksmith shop, bunk house, dance platform, beer platform, merchandise store, corral, water faucets, pumps, water trough, a slough [Grasshopper?], ditch, road, fence lines and gates, tree rows, 26 toilets (some with signs: "women only", "men only"), bath houses (men's and women's), 12 toilet holes, wood piles, tools, etc. Mr. Meek's notes can be used to reconstruct a map of the camp layout as it existed less than a year following the riot. This map reconstruction, review of historical aerials and additional historic photographs, as well as an intensive geophysical survey of the Hop Ranches is recommended. These preparatory efforts will help

guide an intensive pedestrian archaeological survey, defining subsurface structural features as well as camp boundaries and loci within them.

Before conducting any subsurface testing to evaluate specific resources, a research design/work-plan should be formulated. The research design should take into account the themes discussed by HARD Work Camps Team (2007). It should also indicate appropriate methods to address these questions, specify minimum sampling density, level of recording effort, and report contents.

Mitigation Measures

Restoration and preservation of the hop kilns should serve as part of the mitigation measures related to impacts to the Hop Ranches. Archaeological data recovery of eligible/contributing features of the district should also be part of the mitigation measures required. Interviews/oral histories of the hop grower families (Durst, Horst, Wood, Jasper, and Roddan) as well as individuals that worked on any of these ranches would be valuable and a possible means of mitigating impacts. Historic photographs and other memorabilia including hop-specific machinery might be collected and displayed in a local museum exhibit.

Levees and Dams

Findings

The Bear River north levee runs along the southern border of the Project Area. It was originally built to protect valuable farmlands from flood and mining debris. The Bear River Levee District was formed in 1874, with D.P. Durst being one of the commissioners. Four years later, with the passage of the Drainage Act, Jasper and Wood secured contracts to improve the segment from Johnson's Crossing to the railroad in 1881. By 1891, the levee stood eighteen feet tall and had cost $145,000. The levee is an historic resource that stands as a testament to the extraordinary efforts taken to manage the ravages of the mining debris era, deserving of recognition.

Two small historic dams are located between Johnson's Crossing and Camp Far West, on the north side of the old Bear River channel (in the Project Area). These were observed on modern aerial photographs.

Recommendations

Recordation of the levees and dams by a qualified archaeologist are a sufficient level of effort for compliance with cultural resources regulations when specific plans have been developed for these portions of the Project Area. The importance of the levee to this region might be emphasized as a point of historic interest in literature and/or interpretive signage.

Gold Dredging

Findings

Gold dredging occurred on the Bear River near Camp Far West at the turn of the 20th century. Two Risdon dredges, operated by the Bear River Gold Mining Company, began in July 1900, and another two started up in 1902. Dredge tailings from their operations are situated at the very southeast corner of the Project Area. These tailings are recorded as CA-YUB-1459-H. Such tailings are common in the county and are not considered significant enough for listing in the National or State Register of Historic Places.

Recommendations

No additional cultural resources management is required regarding this resource.

CONCLUSIONS

This report documents the historical context for the proposed Johnson Rancho and Hop Farm annexation, reviews historic maps, summarizes the findings of previous cultural resources surveys, and makes recommendations for future cultural resources management.

Cultural Resources Inventory Status

Approximately forty percent of the Project Area has been previously surveyed. Sixty percent of the acreage, approximately 2,440 acres, remains to be examined at a level other than the programmatic review conducted for this report.

Prehistoric Resources

One known prehistoric burial site with possible midden, CA-YUB-751, is situated within the Project Area. Additional prehistoric resources are likely to be present, especially along sensitive areas such as the old Bear River channel at the southern boundary of the property and Grasshopper Slough.

Historic Resources

Twelve historic resources have been previously recorded (Table 3). An additional thirty-one locations of probable historic resources were identified after examining old maps and a modern aerial photograph (Table 4). Forty-three percent of these locations relate to the Hop Ranches in the northwestern portion of the Project Area. The remainder of probable historical resources are related to mapped homesteads or structures near Johnson's Crossing (CA-YUB-1195-H, a National Register resource) and elsewhere, as well as possible remains of Camp Far West, and linear features such as the Bear River Levee, the California Emigrant Trail, and unnamed historic roads. The Hop Ranches, Johnson's Crossing, Camp Far West, and the California Emigrant Trail are regarded by the local historical society and state as important resources worthy of recognition. All currently have landmarks associated with them.

Remaining Inventory Effort, Evaluation, & Mitigation Tasks

Nearly 2,500 acres of the Project Area still need to be surveyed. This work should be done as the plans for specific projects are prepared and submitted to the city of Wheatland for review and processing, which would include environmental review per CEQA. Some previously surveyed areas may require additional targeted survey to address the possible presence of resources identified on historic maps. Areas of special sensitivity, such as the Hop Ranches, Johnson's Crossing, Camp Far West, the California Emigrant Trail, and the Native American burial site, should be carefully evaluated. Thoughtful measures to mitigate impacts to these resources should benefit the local community and region at large (e.g., creation of a heritage center or interpretive trail, oral histories).

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